


```

1 0001 0 MODULE LIB$ESTABLISH (%TITLE'Establish a handler'
2 0002 0 IDENT = '1-002' ! File: LIBESTABL.B32 Edit: SBL1002
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1
7 0007 1 ****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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26 0026 1 *
27 0027 1 *
28 0028 1 ****
29 0029 1
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: Utility Library
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 This module places the address of a routine into the SRMSA_HANDLER
37 0037 1 offset of the callers stack frame, thereby setting up the routine
38 0038 1 as the callers error handler.
39 0039 1
40 0040 1 ENVIRONMENT: User mode, re-entrant, AST level or not or mixed.
41 0041 1
42 0042 1 AUTHOR: Jonathan M. Taylor CREATION DATE: 6-JUL-77
43 0043 1
44 0044 1 MODIFIED BY:
45 0045 1
46 0046 1 : VERSION
47 0047 1 01 - original
48 0048 1 0-2 - Use SFS symbols. TNH 8-Oct-77
49 0049 1 0-3 - Declare PSECTS. TNH 19-Dec-77
50 0050 1 0-4 - Change to STARLET library. DGP 20-Apr-78
51 0051 1 0-5 - Change REQUIRE files for VAX system build. DGP 28-Apr-78
52 0052 1 0-6 - Change STARLET to RTLSTARLET to avoid conflicts. DGP 1-May-78
53 0053 1 0-7 - Change file name to LIBESTABL.B32, and change the name of the
54 0054 1 REQUIRE file similarly. JBS 14-NOV-78
55 0055 1 1-001 - Update version number and copyright notice. JBS 16-NOV-78
56 0056 1 1-002 - Use prologue file. SBL 24-Jun-1983
57 0057 1 --

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```
59      0058 1 | PROLOGUE FILE:  
60      0059 1 |  
61      0060 1 |  
62      0061 1 |  
63      0062 1 | REQUIRE 'RTLIN:LIBPROLOG';           ! LIB$ definitions  
64      0133 1 |  
65      0134 1 |  
66      0135 1 | TABLE OF CONTENTS:  
67      0136 1 |  
68      0137 1 |  
69      0138 1 | FORWARD ROUTINE  
70      0139 1 |  
71      0140 1 | LIB$ESTABLISH;                  ! Establish an error handler for the caller  
72      0141 1 |  
73      0142 1 |  
74      0143 1 | MACROS:  
75      0144 1 |  
76      0145 1 |  
77      0146 1 |  
78      0147 1 | EQUATED SYMBOLS:  
79      0148 1 |  
80      0149 1 |  
81      0150 1 |  
82      0151 1 | OWN STORAGE:  
83      0152 1 |  
84      0153 1 |  
85      0154 1 |  
86      0155 1 | EXTERNAL REFERENCES:  
87      0156 1 |  
88      0157 1 |
```

```
90 0158 1 GLOBAL ROUTINE LIB$ESTABLISH (      ! Adr of adr of users handler
91 0159 1     NEW_HANDLER) =
92 0160 1
93 0161 1     ++
94 0162 1     FUNCTIONAL DESCRIPTION:
95 0163 1
96 0164 1     Move the address passed as an argument to the SF$A_HANDLER
97 0165 1     offset of the callers frame. Return address of old-handler.
98 0166 1
99 0167 1     FORMAL PARAMETERS:
100 0168 1
101 0169 1     NEW_HANDLER.ra.v      Adr. of the routine to set up as handler
102 0170 1
103 0171 1     IMPLICIT INPUTS:
104 0172 1     NONE
105 0173 1
106 0174 1     IMPLICIT OUTPUTS:
107 0175 1
108 0176 1     NONE
109 0177 1
110 0178 1     ROUTINE VALUE:
111 0179 1
112 0180 1     OLD_HANDLER.wa.v      previous contents of SF$A_HANDLER
113 0181 1
114 0182 1
115 0183 1
116 0184 1     COMPLETION CODES:
117 0185 1
118 0186 1     NONE
119 0187 1
120 0188 1     SIDE EFFECTS:
121 0189 1
122 0190 1     The callers stack frame will be modified.
123 0191 1
124 0192 1     --
125 0193 1
126 0194 2     BEGIN
127 0195 2
128 0196 2     LOCAL
129 0197 2     OLD_HANDLER;      ! store the old handler address
130 0198 2     BUILTIN
131 0199 2     FP;
132 0200 2     MAP
133 0201 2     FP: REF BLOCK[BYTE];
134 0202 2     OLD_HANDLER = .FP[SFS$SAVE FP];
135 0203 2     .FP[SFS$SAVE FP] = .NEW_HANDLER;
136 0204 2     RETURN .OLD_HANDLER;
137 0205 1     END;           !End of LIB$ESTABLISH
```

:TITLE LIB\$ESTABLISH Establish a handler
:IDENT \1-002\

.PSECT _LIB\$CODE,NOWRT, SHR, PIC,2

LIB\$ESTABLISH Establish a handler
1-002

N 7
16-Sep-1984 00:50:39 VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:38:45 [LIBRTL.SRC]LIBESTABL.B32;1

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(3)

0C 50 0000 00000
0C BE 0002 00002
04 AC 0006 00006
04 0000B

.ENTRY LIB\$ESTABLISH, Save nothing
MOVL @12(FP), OLD_HANDLER
MOVL NEW_HANDLER, -@12(FP)
RET

: 0158
: 0202
: 0203
: 0205

; Routine Size: 12 bytes, Routine Base: _LIB\$CODE + 0000

LI
1-

LIB\$ESTABLISH Establish a handler
1-002

B 8
16-Sep-1984 00:50:39
14-Sep-1984 12:38:45 VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBESTABL.B32;1

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(4)

; 139 0206 1 END
; 140 0207 0 ELUDOM

!End of module

PSECT SUMMARY

Name	Bytes	Attributes
LIB\$CODE	12	NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	-----	Symbols	-----	Pages	Processing
	Total	Loaded	Percent	Mapped	Time
\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	1	0	581	00:00.8
\$255\$DUA28:[LIBRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS\$:LIBESTABL/OBJ=OBJ\$:LIBESTABL MSRC\$:LIBESTABL/UPDATE=(ENH\$:LIBESTABL)

Size: 12 code + 0 data bytes
Run Time: 00:02.1
Elapsed Time: 00:08.8
Lines/CPU Min: 5971
Lexemes/CPU-Min: 8740
Memory Used: 29 pages
Compilation Complete

0206 AH-BT13A-SE
VAX/VMS V4.0

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